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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/325,636 | 06/04/1999 | HIROAKI OOKI | P99.0601 | 3047 |

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ROBERT DEPKE
HOLLAND + KNIGHT
55 W. MONROE
CHICAGO, IL 60603

EXAMINER

MOE, AUNG SOE

ART UNIT PAPER NUMBER

2612

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.
09/325,636

Applicant(s)
Hiroaki Ooki

Examiner
Aung Moe

Art Unit
2612



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jul 17, 2002
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, and 5 is/are rejected.
- 7) ☒ Claim(s) 2 and 4 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Claim Objections

1. Claim 5 is objected to because of the following informalities:

In claim 5, line 8, it is unclear how "a charge transfer portion" is related to "a charge transfer portion" as recited in lines 1-2? If there is the same "charge transfer portion", the Examiner suggests changing "a charge transfer portion" in line 8 to -- said charge transfer portion--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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3. Claims 1, 3 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Yonemoto (U.S. 6,441,851).

Regarding claim 1, Yonemoto '851 discloses a driving method for a solid-state image sensing device (Fig. 1) having a plurality of sensor portions (i.e., the element 1 of Fig. 1) being disposed two-dimensionally in a horizontal and a vertical direction(s), and a vertical charge transfer portion (i.e., the element 2 of Fig. 1) being disposed between said plurality of sensor portions (1) and being provided with transfer electrodes (i.e., col. 2, lines 60+) of a plurality of systems disposed along its disposed direction, comprising the steps of:

selectively applying high level driving pulses to said transfer electrodes of said plurality of system in respective section periods in a vertical transfer period (i.e., Fig. 3; col. 3, lines 55+);
and

transferring the signals charges read out from said plurality of sensor portions in the vertical directions (i.e., col. 4, lines 5+);

wherein a sectional period in a vertical transfer period (i.e., noted the section between 't2' and 't3' as shown in Fig. 3), in which the number of system s of said transfer electrodes to be applied with high level driving pulses becomes minimum is set longer than that of the other sectional periods (i.e., noted from Fig. 3 that the sections between t2-t3, t4-t5 and t6-t7 are longer than the sections between t1-t2, t3-t4, t5-t6 and t7-t8; see col. 4, lines 55+).

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Regarding claim 3, the method claim 3 is corresponded to the claim 1 as rejected above, thus, the claim 3 is rejected for the same reasons with respect to claim 1 as discussed above (i.e., see Examiner's comments with respect to claim 1 above).

Regarding claim 5, Yonemoto '851 discloses a charge transfer device (Fig. 1) having a charge transfer portion being formed of transfer electrodes of a plurality of systems disposed in the charge transfer direction (Fig. 1; col. 2, lines 50+);

wherein high level driving pulses are applied to said transfer electrodes of said plurality of systems in respective sectional periods in a charge transfer period (i.e., see Fig. 3);

signal charges in the charge transfer portion are transferred (i.e., col. 3, lines 55+ and col. 4, lines 5+); and

a sectional period in a charge transfer period (i.e., the period between t_2 and t_3 as shown in Fig. 3), in which the number of systems of said transfer electrodes to be applied with high level driving pulses becomes minimum is set longer than that of the other sectional periods (i.e., noted from Fig. 3 that the sections between t_2 - t_3 , t_4 - t_5 and t_6 - t_7 are longer than the sections between t_1 - t_2 , t_3 - t_4 , t_5 - t_6 and t_7 - t_8 ; see col. 4, lines 55+).

Allowable Subject Matter

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4. Claims 2 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Tanaka '565, Yokoyama '380, Toma '212 and Miyaguchi '427 shwos a charge transfer device having transfer electrodes and the sensor portions.

b. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Aung S. Moe** whose telephone number is **(703) 306-3021**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wendy Garber**, can be reach on (703) 305-4929.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

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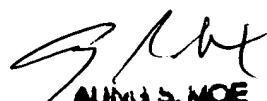
(703) 872-9314, (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to
the customer service number **(703) 306-0377**.

A. Moe

March 10, 2003


AUNG S. MOE
PATENT EXAMINER